

does an American atlas of procedures in neonatology have anything to offer on this side of the Atlantic? The answer is yes!

The second edition of this atlas is well laid out and easy to read. The early part of the book deals with the ethical issues, environment, and physiological monitoring systems commonly found in neonatal intensive care units. Subsequent chapters tackle the procedures themselves. Each chapter has an identical format: indications/contraindications of the procedure; equipment; precautions; possible complications; rounded off by appropriate references. While most of the described procedures are routinely performed on any neonatal intensive care unit, some such as bronchoscopy, cryotherapy, dialysis, extracorporeal membrane oxygenation and gastrostomy should only be carried out in specialist tertiary centres. However, the inclusion of such topics adds to the value of this book. An understanding of these specialist procedures allows better counselling of parents, and is also necessary when obtaining consent for treatment prior to transfer.

The strengths of this text are the range of topics covered, the easy to read chapters and the excellent illustrations, medical photographs, and x ray pictures. I feel that the authors waste space with repetitive descriptions of the contents of sterile equipment packs in many chapters. While each procedure is well described in isolation, a unifying chapter on resuscitation is the only real omission from the book. With its emphasis on the possible complications of neonatal procedures one obtains a healthy respect for interventions aimed at improving neonatal survival.

This is an ideal reference textbook of procedures in neonatology for both medical and nursing staff in the early part of their training. It is well worth adding to the unit's library. However, it is rather expensive at £34 particularly as it will rapidly become 'a friendly well worn companion in the intensive care nursery' (as the editors hope).

A W R KELSALL
Neonatal research fellow

Workbook in Practical Neonatology. 2nd Ed. Edited by R A Polin, M C Yoder, and F D Burg. (Pp 480; £34 paperback.) W B Saunders, 1993. ISBN 0-7216-4292-6.

Each year more specialist neonatal textbooks are introduced, and new editions of old friends become available. The second edition of this workbook has doubled in size and in 19 chapters the book concisely covers the major topics in neonatology. The chapters are well written and very informative. The text is reinforced by a wide range of tables, illustrations, and medical photographs. Each chapter is supplemented by appropriate up to date references (some from 1993).

Where this book differs from the major textbooks in neonatology is that it is interactive. Throughout the chapters there are a series of well chosen clinical examples and problem oriented tasks. Each case is introduced with a short history, and the results of physical examination and preliminary investigations. In response to a scenario that could be found at any time on the neonatal intensive care unit a differential diagnosis and treatment strategy has to be formulated. The 'appropriate' diagnosis and 'optimum' management of the case are

subsequently discussed in the body of the text.

As this workbook deals with common clinical problems it is not difficult to read, and you are constantly reminded of similar cases in the nursery. It is an ideal text for medical staff in the early part of their training, and the interactive problem oriented approach provides perfect practice for those clinical neonatal short cases in MRCP part II. I preferred having the cases interspersed within the text rather than at the end of each chapter as it meant that they could not be ignored. The chapters dealing with resuscitation, haematology, renal, cardiac, and surgical problems were the best in the book.

The difficulties with this interactive format are firstly that this book was designed for the American market and so some mental agility is required to convert some of the biochemical values to recognisable units. Secondly, the treatment strategies are those preferred by the chapter's authors and therefore may differ from unit to unit.

Overall, I very much liked the design and content of this book. It provides a good introduction to the management of common neonatal clinical problems especially for those embarking on a career in neonatology.

A W R KELSALL
Neonatal research fellow

The Management of Visual Impairment in Childhood. Edited by A Fielder, A Best, and M Bax. (Pp 213; £37.50 hardback.) Cambridge University Press, 1993. ISBN 0-521-45150-7.

Children with a major visual impairment comprise a small group in this country. As a general paediatrician it is easy to forget them and assume that other specialists are dealing with them. As a community paediatrician clearly this is inappropriate and this book provides a valuable collection of information by specialists for other specialists or the non-specialist. Team working is emphasised. The intended audience of paediatricians, educationalists, ophthalmologists, and social workers is well catered for, though there is an obvious medical bias.

I found the book easy to read. Case histories were used in many chapters making the text lively and relevant. It is extensively referenced for those who want to take the subject further.

The book starts with epidemiology and ends with prevention. Both these chapters contain much international information which is interesting, but the rest of the book is largely only relevant in the developed world.

Three chapters on visual, ophthalmological, and neurological assessment have a degree of overlap. There is helpful simple explanation but also some technical terms left unexplained. I found the discussion of the differences between cortical and ocular impairment particularly useful. The discussion on ophthalmological management by one of the editors is a delightfully positive, 'anecdotal and personal' chapter reflecting the author's enthusiasm. The three chapters on developmental and other paediatric aspects also overlap. They contain much practical information. The paediatric and community paediatric chapters could have been combined with an emphasis on an integrated child health service. The chapters on education and technology provided an interesting insight into these areas for one

who is on the fringe of these subjects.

There is acknowledgment throughout the book that in the developed world many children with visual impairment also have other disabilities, which emphasises the need for team working. I would have liked more on the combination of hearing and visual loss, a group of children who can so easily fall between professionals. The editors are aware that there is a lack of information on adolescents and young adults. This applies to much in the field of disability.

CONNIE PULLAN
Consultant community paediatrician

SOFTWARE REVIEW

Instat: Instant Statistics. By GraphPad Software Inc, 1993. Address: 10855 Sorrento Valley Road, Suite 203, San Diego, CA 92121, USA. Requires DOS 3.0, 470 KRAM and 1.2 MB hard disk: \$95 (students and academic institutions eligible for discount).

Clinician's review:

You can imagine the scene; the abstract deadline is approaching, you have a burgeoning spreadsheet and a gut feeling that the data may contain something relevant. There is a need for a statistical program that is easy to use, compatible with standard software, and does not require many hours of training. For example, if you have decided you need to do a paired *t* test, Instat can process columns of data directly from the spreadsheet (data can be transferred in ASCII format or using Microsoft Windows). The program is menu based allowing the user to select a statistical test. Each line contains a brief explanatory phrase for example: 'Alternate *t* test, assume Gaussian populations with different SDs'. If you wish to be reminded about Gaussian populations an explanation is available immediately on the pull down help menu. Apart from the program's simplicity, it is the help menu which makes it particularly attractive to clinicians. These brief tutorials are designed to prevent inappropriate statistical tests being used and can introduce a non-statistician to the subject.

In addition to the descriptive statistics and statistical comparisons (parametric and non-parametric) the program includes confidence interval calculations, estimation of necessary sample size, correlation and regression analysis, graph display and output. The graphs are not of publication quality as they are really intended as a visual check that values have been entered correctly. The other important role of graphs in Instat is in the interpretation of results; this is effectively illustrated in the discussion on correlation where one extreme outlying point has changed a correlation coefficient of 1.0 to 0.54. In this example the calculated value is misleading, but would have been apparent on a graph.

Instat is aimed at scientists and clinicians who need to analyse relatively small data sets (less than 500 data points) and perform basic statistical analyses. The program cannot

perform survival curve analyses, multiple regression, logistic regression, or two way analysis of variance (ANOVA) (however, it can do repeated one way ANOVA). In my opinion these deficiencies are welcome as advanced analyses are best conducted with the advice of a statistician. Overall Instat achieves its promise: it is easy to use, reviews the principles of statistics, and provides some guidance in the choice and interpretation of statistical tests.

SUE BEATH
Lecturer in paediatrics

Statisticians review:

Instat is a computer package whose statistical ambitions are fairly modest. Its target is the scientist, with perhaps only the haziest of recollections of any introductory course in statistics that he or she ever attended, who wants a repertoire of statistical methods with mostly familiar names. Within this framework, Instat does a good job in providing basic, unambiguous output. Its help menu is well conceived and the pithy descriptions of statistical ideas and objectives are written in clear and simple language. Though this inevitably results in some short cuts and oversimplifications, the benefits of keeping

explanations simple at this level of statistical skill are substantial. The booklet describing the program could have usefully supplemented the help menu by making more illustrative use of computer output. However, it mainly goes over the same ground.

There are no particular surprises in the choice of standard statistical tests implemented by the package, though there is possibly more emphasis on different varieties of multiple comparison procedures than would be expected or favoured by some statisticians. Regression is confined to the simple two variable, linear case but there is a companion package Inplot which is advertised to offer curve fitting of non-linear models and also produce publication quality graphics. One of the less common features of this package is the set of options to find the sample sizes necessary to achieve specified power (or required width confidence intervals) for simple experiments involving one mean or proportion or comparisons of two means or proportions. In some respects, statisticians often feel less comfortable about scientists using such features to fix the statistical aspects of their experimental design than they do about oversimplification of analyses.

The design of most experiments would usually benefit considerably from taking into account multifactor effects beyond the scope of packages such as this. The danger is that the easy availability of simple prescriptions for experiment size may make scientists less ready to seek out unfamiliar statistical ideas and design possibilities.

The Instat spreadsheet is limited to at most 500 rows and 26 columns which is rather restrictive. Even small experiments often result in calculating many derived variables and 26 columns are soon filled. Numerically, the package appears to give reliable results as should be expected since statistical techniques prone to numerical instability and round-off error are not involved. Instat, which runs under DOS or Windows, is simple to use and the screen layouts are easy on the eye.

The package provides a useful learning vehicle for elementary statistics but it would have been reassuring to see a few more pointers to giving the user wider horizons on the possibilities for analysis and design.

P DAVIES
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